

REMARKS

The application has been reviewed in light of the Office Action dated December 15, 2004. Claims 1-17 are pending, with claims 1, 10, 12 and 15 being in independent form. By this Amendment, claims 1, 10, 12 and 15 have been amended to correct a typing error.

Drawings

Fig. 1 has been labeled Prior Art.

Claim Objections

The spelling of “substantia” has been corrected.

Claim Rejections – 35 USC § 112

Claims 1-17 were rejected under 35 U.S.C. §112, first paragraph as purportedly failing to comply with the enablement requirement. The rejection and its basis were carefully considered, but the rejection is respectfully traversed. It is believed that the disclosure, including the material incorporated by reference, suitably describes how to obtain and use a gray matter suppressed signal (GMS) and a white matter suppressed signal (WMS) of tissue that includes the effect of SNc. Applicants propose a telephone interview at which at least one of the inventors would participate to discuss this issue, and plan to call the examiner in order to request and set up such an interview.

Claim Rejections– 35 USC § 102/103

Claims 1, 9, 15 and 16 were rejected as anticipated or, in the alternative, obvious over Gosche U.S. Patent No. 6,430,430 (“Gosche”). Claims 2-4, 10-14 and 17 were rejected under 35 U.S.C. §103(a) over Gosche.

After careful consideration, the rejections are respectfully traversed. To the extent the Gosche patent is understood, it appears to propose a knowledge-based method for detecting

hyperintensities in the brain using what appears to be standard segmentation and clustering techniques. In contrast, this patent application discloses specifically using the ratio of two inversion recovery sequences to produce an extraordinarily sensitive “turbocharged” T1-weighted image to detect chronic degenerative changes. Pathology is directed to hypointensities in the ratio image rather than to hyperintensities.

The process disclosed in this application is believed to have advantages in addition to increased sensitivity. They include the precise lines of demarcation of pathology, a feature that is a consequence of the particular ratio image. It is believed that this feature could not have been predicted by someone skilled in the art of making images based on the known prior art.

Further detail regarding Gosche and the claimed inventions can be discussed at the proposed telephone interview.

Allowable Subject Matter

Claims 5-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The indication of allowability is appreciated, but it is believed for the reasons stated above that the claims from which claims 5-8 depend are allowable.

Accordingly, for at least the above-stated reasons, Applicants respectfully submit that independent claims 1, 10, 12 and 15, and the claims depending therefrom, are patentable over the cited art.

In view of the amendments and remarks above, Applicants submit that this application is in condition for allowance.

If a petition for an extension of time is required to make this response timely, this paper

should be considered to be such a petition. The Office is hereby authorized to charge any fees that may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Allowance of this application is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Paul Teng", is written over a horizontal line.

Paul Teng, Reg. No. 40,837
Attorney for Applicants
Cooper & Dunham LLP
1185 Avenue of the Americas
New York, New York 10036
Tel.: (212) 278-0400